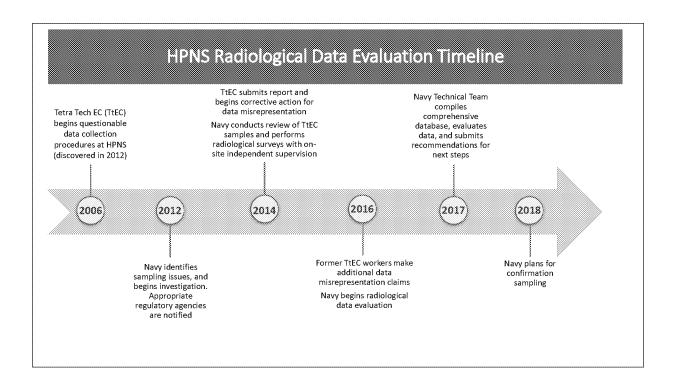
# Hunters Point Naval Shipyard Radiological Data Evaluation

Evaluation Process and Initial Results
January 31, 2018

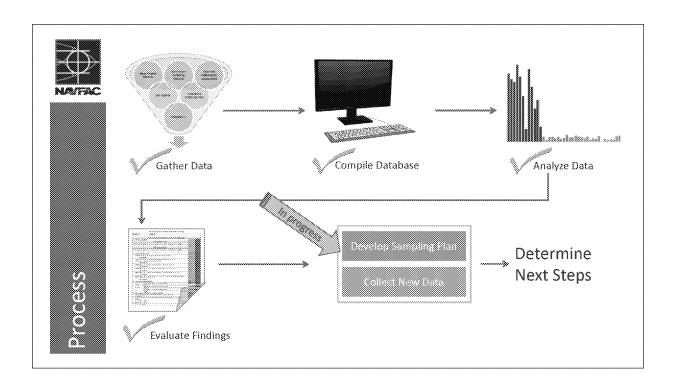


Hello and welcome to the Hunters Point Naval Shipyard community meeting. I'm Derek Robinson, the Navy's cleanup project manager for the shipyard. Today I'll be talking about the Navy's re-evaluation of TtEC radiation work completed at Hunters Point. Much of the background information has been talked about at past public meetings, so today's focus will be on the investigation results and future plans. If you have questions about the history of the investigation, more information can be found on our website at: bracpmo.navy.mil/hpns. (Recommend flash website on screen to allow attendees to copy address).

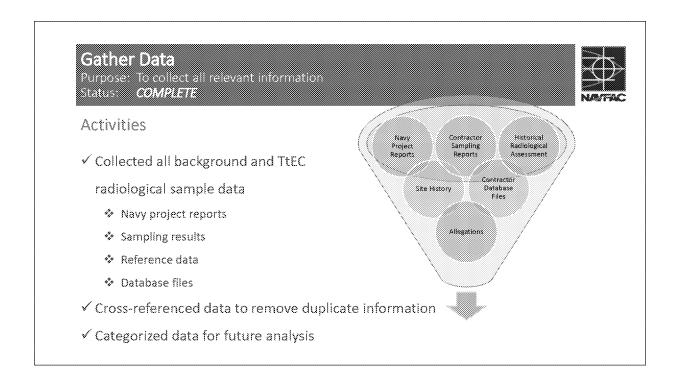


Slide 2: In 2012, the Navy's quality control process detected some inconsistencies with collected data. After further evaluation, it was discovered that Tetra Tech EC employees collected soil samples from one area of the site and indicated that they were from another area. An investigation was initiated, it was determined that the actions were intentional. Subsequent corrective actions were completed by Tetra Tech at the company's expense. This investigation identified 386 falsified samples and several areas where field work had to be repeated. Tetra Tech employees were disciplined and the matter was considered closed at that time.

In 2016, a former Tetra Tech employee brought new allegations to the attention of the Navy when he was interviewed by a local Bay Area news station. In response to these new allegations, the Navy interviewed the former employee and hired a team of technical experts to reopen the investigation into potential wrong-doing and ensure that the property is safe for future use. The rest of this presentation focuses on the Navy's 2017 investigation and results.



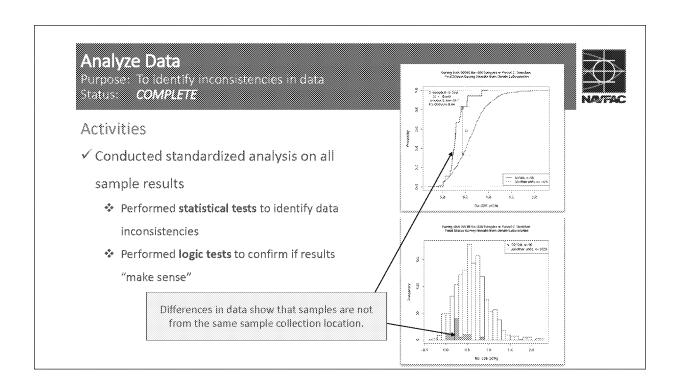
Slide 3: Over the last year, the Navy's technical team has gathered data, evaluated it, and has developed recommendations for additional actions. The scope of our investigation includes radiological work completed by TtEC spanning more than 12 years, 300,000 cubic yards of soil, 20 buildings, 30 former building sites, and 28 miles of removed storm and sewer drain lines. This process has taken longer than expected, partially due to the massive amount of information that had to be reevaluated. It was important that a thorough, holistic process was used to ensure that the site is safe now and remains safe into the future. Regulatory agencies, including the US Environmental Protection Agency, the Department of Toxic Substances and Control, and the California Department of Public Health have been consulted throughout the process.



Slide 4: The gathering of data from over 12 years of activities included accessing data base files, obtaining copies of laboratory sample results, going through reports to collect data, and reviewing site reference information to ensure that nothing was missed. All of this data had to then be cross referenced to remove duplicate information and ensure it was categorized appropriately for future data analysis.

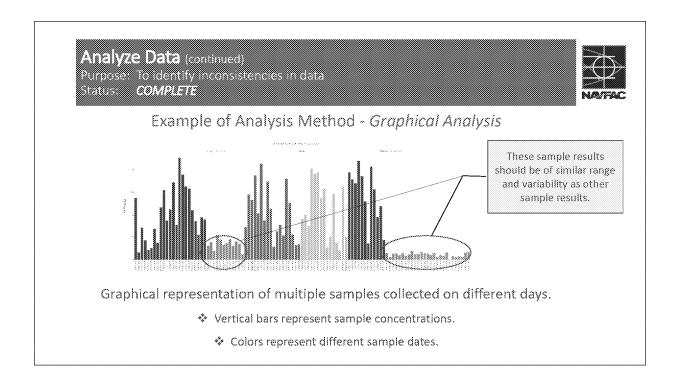
# Compile Database Purpose: To establish an accurate database Status: COMPLETE Activities ✓ Compiled electronic database → Radiological soil samples → Radiological scans ✓ Conducted quality control review

Slide 5: Data was then placed into two master databases; one with data from soil sampling activities and another with data from radiological scanning. A quality-control review was then performed on the data to ensure that entries in the database matched data from laboratory reports. After the entire process was completed, our final database contains approximately 70,000 soil samples and 900,000 analytical results.

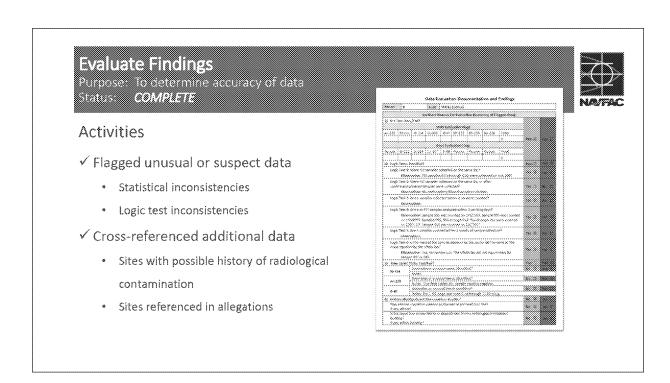


Slide 6: Statistical tests were used to identify data inconsistencies. For that analysis, most of the statistics compared data collected from adjacent areas to one another and data collected on different days from the same area. Samples collected in similar areas would generally be expected to have similar characteristics.

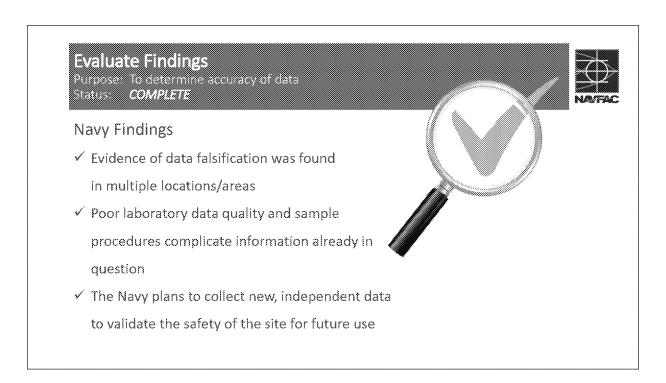
The Navy used logic tests to search for errors in the sample collection/analysis process. Here's an example. For any particular sample collected, how long did it take to have the sample analyzed? An analysis date well after the sample date would indicate an inconsistency that might require additional evaluation to determine if data falsification had occurred. As another example—was the weight of the sample, when collected, equal to the weight of the sample when it was analyzed? That is important because if the weight of the sample changed significantly, this would indicate an inconsistency that might require additional evaluation to determine if data falsification had occurred.



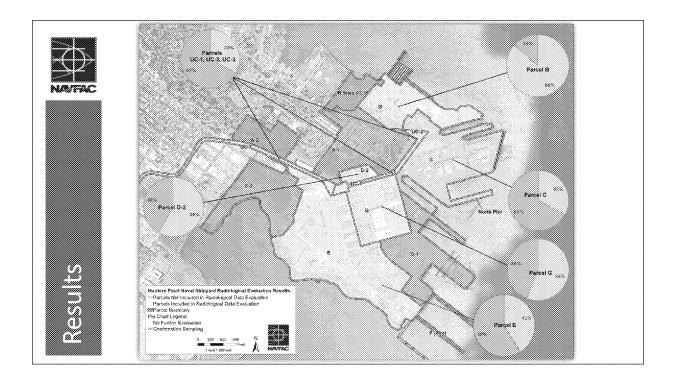
Slide 7: This slide shows a graphical representation of individual soil sample results. The height of the colored bars indicates the concentration of actinium in a particular sample. Actinium is naturally occurring and concentrations from samples collected on several different days should not change significantly. Each bar represents a different sample. Each group of color represents a particular sample day. The orange and green bars on the right side of the graph indicate these samples have a different range and variability in concentration of actinium when compared to samples collected from the same area on prior days. The difference in naturally occurring actinium levels indicate that soil samples, that should have been collected from the same area, likely represent soil from different locations. This is another indication that data falsification may have occurred.



Slide 8: Areas with suspect data were identified for additional evaluation if statistical or logic tests indicated inconsistencies. In some cases, inconsistencies appear to be evidence of data manipulation and /or falsification. In other cases, inconsistencies may be due to normal variability in background concentrations, but appropriate confirmation data wasn't available. A standardized evaluation sheet was developed to record the data analysis, results, and recommendations for each area. Historical information and allegations were also tracked on these sheets to help in the decision making process.



Slide 9: The yearlong process of gathering data, conducting analysis and evaluations resulted in three general findings. First, evidence of data falsification was found in multiple locations/areas beyond areas identified in 2012 – 2014. Second, instances of poor laboratory data quality made it even more difficult to evaluate information that is already in question, and third, evidence suggesting falsification of data, poor data quality, and allegations by TtEC employees led the Navy to find that new data will need to be collected in areas TtCE completed radiological work to ensure public safety prior to its turnover to the City of San Francisco.



Slide 10: I have just described the findings of the Navy's radiological re-evaluation process. So where do we go next? Findings are being summarized in reports for each parcel and a work plan is being developed in consultation with regulatory agencies to address the collection of data that can be used to make site decisions. The locations, types, and frequency of data are critical in developing an approach that will allow both regulatory agencies and the Navy to agree to and ensures public safety. What we can confirm at this point is that additional sampling, excavations, and scanning of soil have been proposed for areas where TtEC completed radiological work.

# Determine Next Steps

Proposed To develop plans for path forward

N PROCESS



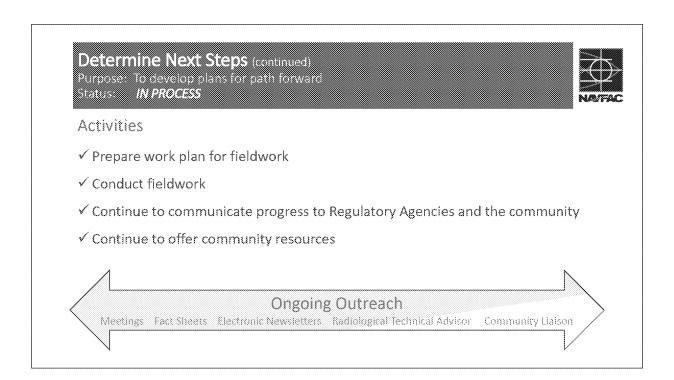
### **Activities**

- ✓ Document data evaluation results
- ✓ Develop an approach for collecting new data to confirm site safety
- ✓ Agree to a sampling/excavation approach with Regulatory Agencies

### Confirmation Sampling Recommended!

Collection of additional data (surveys, scans, or soil samples) is recommended due to evidence of potential data manipulation and/or falsification

Slide 11: This slide shows the activities planned for 2018. Every effort is being made to complete the fieldwork as soon as possible, while taking enough time to ensure that future work is sufficient to meet public health and safety standards. Throughout the process, the Navy is committed to providing information to the public.



Slide 12: Thank you for your time and joining us at this community meeting. As you can see, there are several resources available if you are interested in receiving more information. This list is also available at the welcome table, as well as from any of the representatives located at any of the poster stations for a copy. If you have questions or would like to speak with someone directly, this community meeting has at least two experts at each poster station to answer any questions you may have. I also encourage you to sign up for the Navy's email list to receive future information on environmental work, progress, bus tours, and community meetings. Thanks again for coming today.



# Access Navy Resources For More Information

### Contact HPNS program management

### Derek J. Robinson

Navy BRAC PMO West 33000 Nixie Way, Bldg 50 San Diego, CA 92147 Phone: (619) 524-6026 Fax: (619) 524-5260 derek.j.robinson1@navy.mil

### Attend a bus tour or Navy community meeting

### Upcoming **Bus Tours**

June 9, 2018 9:00 a.m. and 10:30 a.m.

September 8, 2018 9:00 a.m. and 10:30 a.m.

### Upcoming **Navy Meetings**

April 12, 2018\* Parcel F Proposed Plan (TENTATIVE)

July 11, 2018 Radiological Update

October 3, 2018

### Join the HPNS mailing list or leave a comment



Send an email to info@sfhpns.com



Leave a message on the **HPNS Information Line** (415) 295-4742

### Review a Navy report

### City of San Francisco Main Library

100 Larkin Street, 5th Floor Government Information Center San Francisco, CA 94102 (415) 557-4400

### **Navy Website** Main Web Page

www.bracpmo.navy.mil/hpns

### **Shipyard Site Trailer**

(near HPNS security entrance) 690 Hudson Avenue San Francisco, CA 94124

### Navy Radiological Program Web Page

www.bracpmo.navy.mil/hpnsrc



# Contact Community Resources

### Contact the Navy Community Technical Liaison



Dr. Kathryn Higley (541) 737-7063 kathryn.higley@oregonstate.edu www.ne.oregonstate.edu/kathryn-higley

- Internationally-recognized expert in radiological health and safety
- Highly qualified independent resource available to the public on HPNS radiological issues
- Head of the School of Nuclear Science and Engineering at Oregon State University
- Available to answer community member questions by phone or email, during local onsite hours, or by appointment

### Visit the Navy Community Liaison



Mr. James Bryant (415) 970-9051 1333 Evans Avenue San Francisco, CA 94124 community@sfhpns.com

- Local Bayview resident with a long history in community outreach
- Serves as a resource to the greater HPNS community on behalf of the Navy
- Gathers community member questions and shares
   Navy information on the Navy's radiological cleanup at
   HPNS
- Available in person during regular office hours on the first Tuesday of every month from 2:00 p.m., at local non-Navy meetings, or by appointment

# GOTANSWOR



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